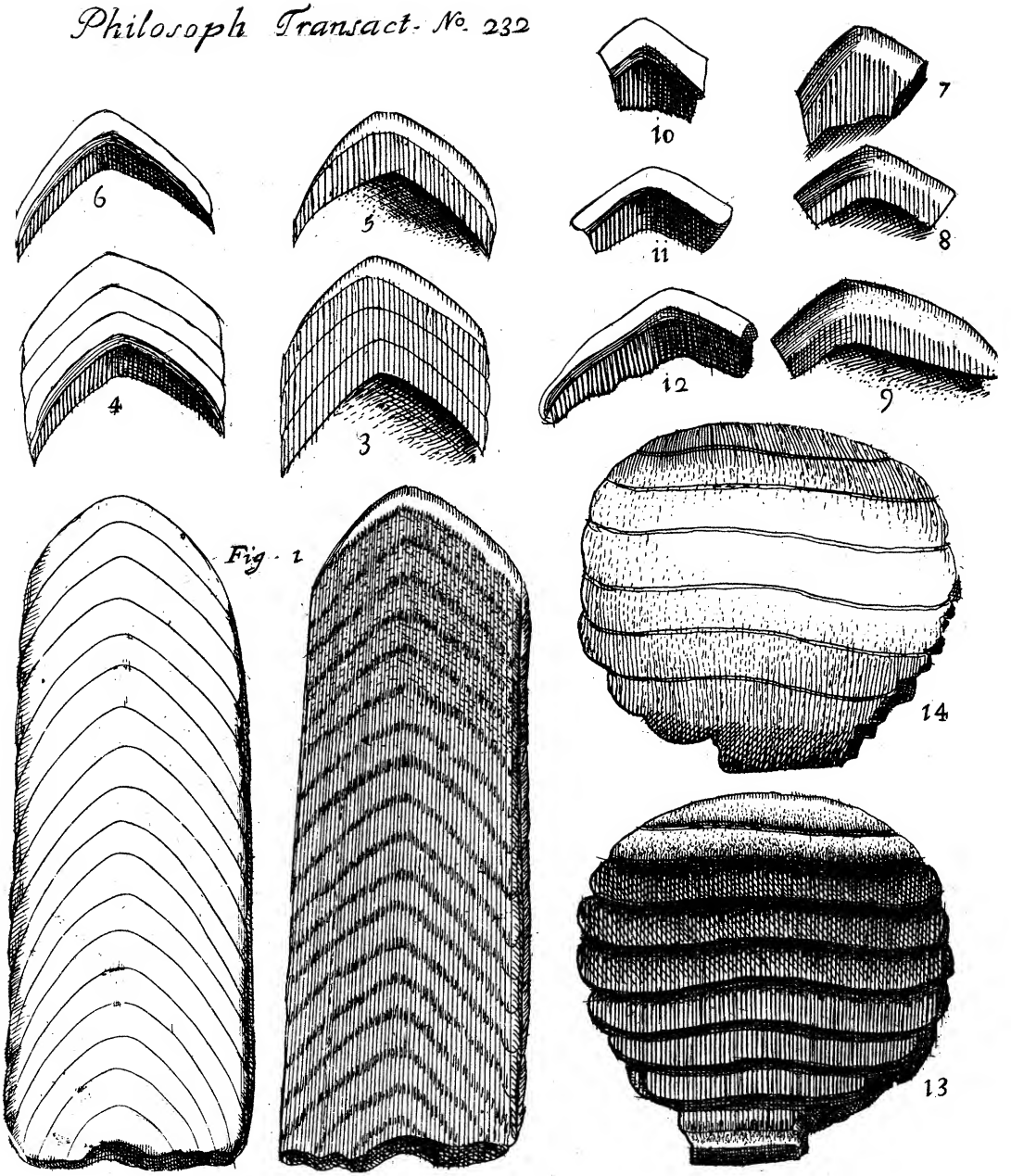
Philosoph Transact. No. 232



from Nov. 24. 1686. *to the ſame Day* 1687. IV. *De Figurarum Geometricè irrationalium Quadraturis. Autore* Johanne Craig. V. *Part of a Letter of Mr.* Robert Tredwey, *to Dr.* Leonard Plukenet, *Dated* Jamaica, Feb. 12. $169\frac{6}{7}$. *giving an Account of a great piece of Ambergrieſe thrown on that Iſland; with the Opinion of ſome there about the way of its Production.*

I. *An Account of the Tongue of a* Paſtinaca Marina, *frequent in the Seas about* Jamaica, *and lately dug up in* Mary-Land, *and* England. *By* Hans Sloane. *M. D.*

DR: *Tancred Robinſon*, Fellow of the College of Phyſitians and *Royal Society*, did me the favour ſome time ſince; to ſhow me a conſiderable number of Foſſil Bones and Shells of ſeveral ſorts he had latley come to his hands from *Mary-Land.* Some of them had received little alteration in the Earth, others more, and ſome were ſo changed as to be ſtony, but all of them retain'd their ancient ſhape ſo well, that it was eaſie for any body, who remembred the Figures of the parts of thoſe Animals, to conclude theſe Foſſils muſt have come from the ſame Original.

One of theſe Foſſils (of which I never remembred to have ſeen any before except a little piece with Mr. *Petiver*) I had the favour of the Doctor to carry home with me to compare with the Tongue of a Fiſh I had obſerv'd

obſerv'd in *Jamaica*; and on ſetting it and the Foſſil together, and comparing them with another of the ſame Tongues in pieces which I ſaw in Mr. *Charletons*, moſt uſeful and admirable Collection of Natural Curioſities; we found a perfect agreement of the Tongue that was dug up in *Mary-Land*, and that taken from the Fiſh in our Collections.

It was the Opinion of ſome, that theſe Bones were the pieces of a petrified Muſhrome, the Lamellæ of which this Foſſil in ſome manner reſembl'd; but to demonſtrate what they were, I had leave of Mr. *Charleton* and Dr. *Robinſon*, to ſhew them at a Meeting of the *Royal Society*, and to take their Figures that they might be grav'd, together with the whole Tongue I had my ſelf. This is done in the Plate belonging to this Tranſaction: where

Fig. 1. Is the whole Tongue of a flat Fiſh akin to the Thornback, call'd *Paſtinaca Marina*, &c. It is made up of many Bones (about Nineteen in this) which are each of them crooked, their two ſides making an obtuſe Angle, ſuch as the ſides of the under mandible of a Man does; the uppermoſt ſides of theſe ſeveral Bones have Furrowes and peices ſtanding together after the manner of the Teeth of a ſhort ſmall tooth'd Comb, the extant ends of which anſwer the like parts in the Bones of the upper Jaw of this Fiſh, between which and this Tongue the Food of this Fiſh is to be cut, torn, or ground to pieces. One inſtance of the many admirable contrivances of the Wiſe Creator, in providing all Creatures with Organs proper to their ſeveral neceſſities.

Fig. 2. Is the under ſide of the ſame divided into ſeveral pieces alſo, but having no Furrows or Teeth, as thoſe of the upperſide have.

Fig. 3, and 6. Shew the Joints or pieces of the ſame Tongue, ſeparated and in ſeveral Poſitions of their upper and under Sides, to ſhow the perfect Agreement is between the pieces of the Tongue of the Fiſh taken lately from it, and thoſe taken out of the Earth, which are Figur'd in the like Poſitions at N° 7, 8, 9, 10, 11, & 12.

Fig. 13. & 14. Are the upper and under ſides of what, I ſuppoſe, is the upper Mandible or Palate of this Fiſh, which is oppoſite to, or anſwers this Tongue: The agreement of this in all parts with the Tongue making it very likely to belong, if not to this ſame, yet to this kind of Fiſh.

Du Tertre in his *Hiſtoire Naturelle des Antilles* p. 217. calls this Fiſh *Autre ſorte de Raye Marcgrave, ed.* 1648. p. 175. *Piſo.* ib. Lib. 3. p. 58. & *ed.* 1658. Lib. 5. p. 293. as well as Mr. *Willoughby* and *Ray*, Hiſt. *Piſc.* p. 66. call it *Nari-Nari*, and give a further account of it. I ſhall alſo have occaſion to ſpeak more of this Fiſh in my Obſervations on the Fiſhes about the Iſland of *Jamaica*, of which this is one, and which I there call *Paſtinaca Marina, Lævis, livida, albis maculis notata.*

I am apt to believe the *Anonymus Portugal*, whoſe deſcription of *Braſile* is publiſhed in *Purchas*, Lib. 7. cap. 1. p. 1313. means this, when he ſays, there were Rayes, having in their Mouth 2 Bones breaking wilks with them.

A Part of one of the Joints of this Tongue was dug up in *England*, and given to Mr. *Charleton*, by Mr. *Lhwid* of *Oxford*, by the Name of *Siliquaſtrum Subnigrum pectinatum maximum.*

Dr. *Robinſon* thinks the Foſſil Palate or Mandible *Fig.* 13, and 14. may be of the ſame kind with that taken notice of by *Lachmund*, in his Book *de Lapidibus*, p. 17. where 'tis call'd *Pentacrinos.*

II. *A*